



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,339	09/23/2003	Shogo Hirose	117255	9283
25944	7590	12/06/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			LEUNG, JENNIFER A	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/667,339	HIROSE ET AL.	
	Examiner	Art Unit	
	Jennifer A. Leung	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 September 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12, 16 and 17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) 1-17 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 September 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12-5-03;11-10-03;3-17-04.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-12, 16 and 17, in the reply filed September 29, 2006 is acknowledged. The traversal is on the grounds that the search and examination of the entire application would not present a serious burden, since the subject matter of all claims is sufficiently related, and a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims. This is not found persuasive for the same reasons set forth in the Restriction Requirement. For instance, the separate classification of Groups I and II is indicative that a search of the subject matter for Group I would not encompass a search of the subject matter for Group II.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 13-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Drawings

3. FIGs. 6(a) and 6(b) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 12 and 17 are objected to because of the following informalities:

In claim 12, line 12:

“LAS” should be changed to --lithium aluminum silicate (LAS)--.

In claim 17, lines 4-6:

“heating means for rising an exhaust gas temperature with burning” should be changed to --heating means for increasing an exhaust gas temperature by burning-- for proper grammatical form.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3, 4, 10, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, it is unclear as to structural limitation Applicant is attempting to recite by, “a length of the slit is 1 mm or more but is not longer than a length which is shorter between 30 mm and 1/2 of a length of the honeycomb structure,” (lines 3-5), because it is unclear as to which endpoints define the claimed range.

Regarding claim 4, it is unclear as to structural limitation Applicant is attempting to recite by, “a length of the slit is 2 mm or more but is not longer than a length which is shorter between 15 mm and 1/4 of a length of the honeycomb structure,” (lines 3-4), because it is unclear as to

which endpoints define the claimed range.

Regarding claims 10 and 16, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 8 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomita et al. (US 4,464,185).

Regarding claim 1, Tomita et al. (FIGs. 1, 2; column 2, line 42 to column 3, line 4) discloses a honeycomb structure 1 comprising:

a plurality of through channels (passages 2, including inlet passages 21 and outlet passages 22) separated by porous partition walls (separator walls 3) and extending in an axial direction of the honeycomb structure 1;

wherein all of said through channels 2 have plugging portions (cover members 4), respectively that plug alternately at either one end of the honeycomb structure (the upper end of to outlet passages 22) or its opposite end (the lower end of inlet passages 21) in a checkered flag pattern (see FIG. 1); and

wherein at least one slit (gas blowing pores 32, FIG. 2) per through channel 2/21/22 is formed in the vicinity of the plugging portion 4 of the partition walls 3 surround the respective

through channels **2/21/22**.

Regarding claim 2, at least one slit **32** is linearly formed in an axial direction to which the through channels **2/21/22** extend (see FIG. 2).

Regarding claim 8, the slit width varies from slit to slit (i.e., varying pore diameters according to distribution line **A**; FIGs. 3, 4; column 3, lines 29-34; column 4, lines 15-19).

Regarding claim 10, the language of the claim is drawn to an intended use of the honeycomb structure, which adds no further patentable weight. In any event, Tomito et al. discloses that the honeycomb structure is a filter **1** comprising partition walls **3** having filterability, for collecting carbon particles in exhaust gasses discharge from an internal combustion engine (column 1, lines 5-9).

Regarding claim 11, the sectional shape of the through channels **2/21/22** may be triangular, rectangular, hexagonal, or circular (see column 4, lines 28-32).

Regarding claim 12, the major crystal phase is selected from cordierite, alumina, mullite, spodumen (a.k.a. LAS) and other ceramic materials (column 3, lines 7-14 and lines 35-43).

Instant claims 1, 2, 8 and 10-12 structurally read on the apparatus of Tomito et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (US 4,464,185) in view of Hidaka et al. (EP 1 128 031).

Regarding claims 3 and 4, Tomita et al. discloses that the slits 32 have a diameter of not less than 100 μ (column 2, lines 48-52), wherein the maximum opening area for each slit 32 is equal to the sectional area of each passage 2/21/22 (column 4, lines 20-28). Tomita et al. further discloses that as an alternative to the slits 32 shown in FIG. 2, the slits may be formed according to slits 6 in FIG. 8, wherein each of the slits 6 is configured to have a substantial length.

Tomita et al. does not specifically recite a slit 32/6 having the instantly claimed range of dimensions. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select the recited dimensions for the slits in the honeycomb structure of Tomita et al., on the basis of suitability for the intended use thereof, because it has been held that changes in size merely involves routine skill in the art, and where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Furthermore, Hidaka et al. is cited to illustrate that it is preferable to maintain the slit lengths within the claimed ranges, to provide mechanical strength to the honeycomb structure (see section [0053]).

Regarding claims 5-7, Tomita et al. is silent as to varying the slit length, such that the length of the slits 32/6 (FIG. 2, 8) in the vicinity of the outer peripheral portion of the

honeycomb structure 1 is longer than the length of the slits located in a central portion of the honeycomb structure 1. Hidaka et al. teaches a honeycomb structure wherein the length of the slits in the vicinity of the outer peripheral portion of the honeycomb structure is longer than the length of the slits located in a central portion of the honeycomb structure 1 (see section [0054]). It would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the honeycomb structure of Tomita et al. such that the length of the slits in the vicinity of the outer peripheral portion of the honeycomb structure was longer than the length of the slits located in a central portion of the honeycomb structure, on the basis of suitability for the intended use thereof, because such a configuration enables the filtrate to be more efficiently discharged to the external space, as taught by Hidaka et al. (see section [0054]).

An increase in the slit length is directly proportional to an increase in the slit open area. Although the collective teaching of Tomita et al. and Hidaka et al. is silent as to other means for increasing the slit open area (e.g., by increasing the number of slits at the outer periphery, or by increasing the width of the slits and the outer periphery), it would have been obvious for one of ordinary skill in the art at the time the invention was made to select other suitable means for increasing the slit open area in the honeycomb structure of Tomita et al., on the basis of suitability for the intended use thereof, because the substitution of known equivalent structures involves only ordinary skill in the art, and the substitution of known equivalent techniques, e.g., for enlarging the slit open area at the outer periphery of the honeycomb structure, would have been obvious. *Ex parte Novak* 16 USPQ 2d 2041 (BPAI 1989); *In re Mostovych* 144 USPQ 38 (CCPA 1964); *In re Leshin* 125 USPQ 416 (CCPA 1960); *Graver Tank and Manufacturing Co. v. Linde Air Products Co.* 85 USPQ 328 (USSC 1950); *In re Fout* 213 USPQ 532 (CCPA 1982);

In re Susi 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (US 4,464,185) in view of Rao et al. (US 5,758,496).

Tomita et al. is silent as to the honeycomb structure 1 comprising an oxide catalyst carried on at least in the vicinity of the slits. Rao et al. teaches an oxide catalyst being carried on at least in the vicinity of the slits (column 3, lines 26-34). It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide an oxide catalyst at least in the vicinity of the slits in the apparatus of Tomita et al., on the basis of suitability for the intended use thereof, because the oxide catalyst reduces the ignition temperature of the carbon particulate collected by the filter, as taught by Rao et al.

9. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwamoto et al. (US 5,853,459) in view of Tomita et al. (US 4,464,185).

Regarding claim 16, Kuwamoto et al. discloses an exhaust gas purification system comprising:

a honeycomb structure (i.e., exhaust gas filter 15a, 15b, FIG. 3; wherein the filter is shown in detail in FIGs. 1, 2) comprising:

a plurality of through channels (i.e., through holes 3) separated by porous partition walls (i.e., through hole diaphragms 2) and extending in an axial direction of the honeycomb structure; wherein all of said through channels 3 have plugging portions (i.e., sealing portions 4), respectively that plug alternately at either one end of the honeycomb structure or its opposite end in a checkered flag pattern (see FIG. 2); and

heating means (**17a, 17b**; FIG. 3) for burning the particulate materials trapped/collected by the honeycomb structure **15a,15b** to regenerate a filterability.

Kuwamoto et al. is silent as to the honeycomb structure comprising the instantly claimed honeycomb structure, including at least one slit per through channel formed in the vicinity of the plugging portion of the partition walls surrounding the respective through channels.

Tomita et al. teaches the instantly claimed honeycomb structure, comprising at least one slit per through channel formed in the vicinity of the plugging portion of the partition walls surrounding the respective through channels (the same comments apply, see above).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to substitute the honeycomb structure of Tomita et al. for the honeycomb structure in the system of Kuwamoto et al., on the basis of suitability for the intended use thereof, because the substitution of known equivalent structures involves only ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore, a honeycomb structure **1** having slits **32** allows for carbon particulates in the exhaust gases to be effectively caught and collected, while the pressure loss occurring when the exhaust gases passes through the filter is reduced (column 1, lines 35-48; column 5, lines 32-36).

Regarding claim 17, the heating means **17a, 17b** of Kuwamoto et al. meets the claim (see column 6, lines 48-53; column 9, lines 10-26).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection

Art Unit: 1764

is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1, 2, 5, 7, 8 and 10-12 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 7,128,961.

Regarding claims 1 and 2, US '961 claims a honeycomb structure comprising:

a plurality of through channels separated by porous partition walls and extending in an axial direction of the honeycomb structure (column 9, lines 49-52);

wherein all of said through channels have plugging portions, respectively that plug alternately at either one end of the honeycomb structure or its opposite end in a checkered flag pattern (column 9, lines 53-59; see also ref. claim 13); and

wherein at least one slit per through channel is linearly formed in an axial direction to which the through channels extend, and in the vicinity of the plugging portion of the partition walls surround the respective through channels (i.e., the void portions; column 9, lines 60-65; also, ref. claim 2).

Regarding claims 5, US '961 claims a slit width in the vicinity of the outer peripheral

portion that is wider than that located in a central portion from a peripheral side of the honeycomb structure (see ref. claim 5). An increase in the slit width is directly proportional to an increase in the slit open area. Although US '961 is silent as to claiming other means for increasing the slit open area (e.g., by increasing the number of slits at the outer periphery), it would have been obvious for one of ordinary skill in the art at the time the invention was made to select other suitable means for increasing the slit open area in the honeycomb structure of US '961, on the basis of suitability for the intended use thereof, because the substitution of known equivalent structures involves only ordinary skill in the art, and the substitution of known equivalent techniques, e.g., for enlarging the slit open area at the outer periphery of the honeycomb structure, would have been obvious.

Regarding claim 7, see US '961 claim 5.

Regarding claim 8, the width for the slits varies from slit to slit (see ref. claim 5).

Regarding claim 10, see US '961 claim 11.

Regarding claim 11, see US '961 claims 9 and 10.

Regarding claim 12, see US '961 claim 12.

11. Claims 3, 4 and 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 7,128,961, as applied to claim 1 above, and further in view of Hidaka et al. (EP 1 128 031).

Regarding claims 3 and 4, US '961 claims a slit width (i.e., void width) within the range of 0.2 to 1 mm, or 0.4 to 0.8 mm (ref. claims 3 and 4). Although US '961 does not specifically claim the slit lengths of the instant application, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select suitable slit lengths for the

Art Unit: 1764

honeycomb structure of US ‘961, on the basis of suitability for the intended use thereof, because changes in size merely involves routine skill in the art, and the precise dimension of the slits would have been considered a result effective variable by one having ordinary skill in the art. Accordingly, one having ordinary skill in the art would have routinely optimized the dimensions of the slits in the honeycomb structure to obtain the desired degree of filterability, *In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980), and where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Furthermore, Hidaka et al. is cited to illustrate that it is preferable to maintain the slit lengths within the claimed ranges, to provide mechanical strength to the honeycomb structure (see section [0053]).

Regarding claim 6, US ‘961 claims a slit width in the vicinity of the outer peripheral portion that is wider than that located in a central portion from a peripheral side of the honeycomb structure (see ref. claim 5). An increase in the slit width is directly proportional to an increase in the slit open area. US ‘961, however, is silent as to claiming other means for increasing the slit open area (e.g., by increasing the length of the slits at the outer periphery). Hidaka et al. teaches a honeycomb structure wherein the length of the slits in the vicinity of the outer peripheral portion of the honeycomb structure is longer than the length of the slits located in a central portion of the honeycomb structure 1 (see section [0054]). It would have been obvious for one of ordinary skill in the art at the time the invention was made to select other suitable means for increasing the slit open area in the honeycomb structure of US ‘961, on the basis of suitability for the intended use thereof, because the substitution of known equivalent structures involves only ordinary skill in the art, and the substitution of known equivalent

techniques, e.g., for enlarging the slit open area at the outer periphery of the honeycomb structure, would have been obvious.

12. Claim 9 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 7,128,961, in view of Rao et al. (US 5,758,496).

US '961 is silent as to claiming an oxide catalyst at least in the vicinity of the slits. Rao et al. teaches an oxide catalyst being carried on at least in the vicinity of the slits (column 3, lines 26-34). It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide an oxide catalyst at least in the vicinity of the slits in the apparatus of US '961, on the basis of suitability for the intended use thereof, because the oxide catalyst reduces the ignition temperature of the carbon particulate collected by the filter, as taught by Rao et al.

13. Claims 16 and 17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 7,128,961 in view of Kuwamoto et al. (US 5,853,459).

US '961 claims a honeycomb structure is to be used as a filter for trapping/collecting/ removing particulate materials from the exhaust gas of an internal combustion engine. US '961, however, is silent as to claiming the recited system for containing the honeycomb structure, wherein the system further comprises heating means for regenerating the honeycomb structure after a filtering operation. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the honeycomb structure of US '961 in the instantly claimed exhaust purification system, because the claimed system configuration is conventional (the same comments with respect to Kuwamoto et al. apply).

Art Unit: 1764

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US 5,566,545, US 2002/050475 and EP 1 132 587 (cited in the European Search Report as documents of particular relevance) were fully considered by the Examiner. However, in view of the newly found prior art, said documents have not been applied.

* * *

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 9:30 am - 5:30 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Calderola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer A. Leung
November 28, 2006 *JAL*


Glenn Calderola
Supervisory Patent Examiner
Technology Center 1700